

## **Cwof Invoice Data File -- Record Format Specification -- II**

Revision: 1.6

Date: November 21, 2003

### **Scope:**

The purpose of this document is to specify the file formats, naming conventions and internal record type formats used for the Cwof Invoice Text and Data File Processing. This process will dictate the creation and storage of ASCII files on the Oracle Server.

### **Revisions:**

- 1.6 -- Modified format of Service Number, From/To Numbers fields for DATA files. All dashes removed from Service Numbers contained within Secondary Key headers as well as the From and To Numbers of LD records (Record Type 83).
- 1.5 -- Added new information regarding TAX Record Layout.
- 1.4 -- Noted that the individual field lengths within the Secondary Key Values for Subscriber, MRC, OCC and LD Record Formats should not be counted twice in the Total Record Length values.
- 1.3 -- Added Filler4 [varchar2(1)] and Carrier [varchar2(12)] fields to the TOLL Record Layout. Total Length of TOLL Record layout is now 274 characters.

### **File Formats:**

The Cwof Invoice processing logic will create two different file formats; Text and Data. The Text format will be a simple ASCII text file similar to the one produced for online viewing and printing from within the PINNACLE Omnis7 Application. It will not require any special file processing or editors to view or print the file.

The Data format will contain the similar ASCII data however, each line will represent a unique record with a specific Record Format structure containing the actual data values. The Data File format is intended to for machine processing where the individual records can be parsed and manipulated. The creation of the Text or Data file will be controlled using a User Defined Field of the ACCTMSTR record associated with a particular Account Number.

### **File Naming Conventions:**

Both file formats will utilize the same naming convention as depicted below. Note that the extension will be used to differentiate between the two formats. Upon executing the Print Logic, the appropriate file(s) will be created or overwritten.

SC\_aaaaaa\_bb\_dddddddd.ext

where	aaaaaa	represents the Account Number
	bb	represents the Billing Cycle ID
	dddddd	represents the Billing Date (yyymmdd)
	ext	represents the File Extension;
		.TXT for Text File
		.MAG / .FTP for Data Files
		(depending on the selected print option)

### **File Contents:**

All data and records written to both the Text and Data files will be of printable ASCII characters or digits with some notable exceptions for record, line and file termination requirements.

### **File Storage:**

All files will be created and stored in a directory path as specified by the operator in the PINNACLE Job Scheduler's 'Report Path'. These data files will consume enormous amounts of disk space. It is the responsibility of the end-user / operator to maintain this area in an effective manner.

### **Records:**

Individual records or lines within the Data file will consist of a three ASCII character (byte) Record Type ID and Record Data Length values followed by the remainder of the Record Header and Record Data. The Record Format will be a combination of several structures. Each structure will have a specific layout using either a fixed format consisting of one or more fields. Each record will be terminated with a carriage return / linefeed combination (<CR><LF> or 0x0D0x0A). The final record in the file will be a printable 'End Of File' marker using the following character sequence; <EOF>.

### Record Format Structures:

The Record Format Structures consist of a Record Type ID value, a Record Length, a Primary Key value, a Secondary Key value as well as the specific Record Data associated with each Record Type ID value. Both the Primary and Secondary Key values will consist of one or more fields. The Primary Key layout will be consistent across all records within the file. The Secondary Key layout may vary slightly between the different Record Type structures however, all Secondary Key layouts will have the same fixed length. The Record Data layout and length will be specific to each particular Record Type ID value.

The Record Format Structure will have the following format:

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	See Record Formats for individual values.
Record Data Length	3	3	See Record Formats for individual values.
Primary Key	6	46	
Secondary Key	52	96	
Record Data	148	variable	Length will depend on the Record Type ID value

### Record Types:

The different Record Types that will be supported are listed below. Each Record Type is designed according to the function it serves and will have specific *Record Type ID* value.

<i>Record Format</i>	<i>Record Type ID</i>
Account Record and Invoice Summary	71
Department Record	72
Subscriber Record	73
Non-Recurring (OCC) Charge	81
Recurring (MRC) Charge	82
Long Distance (LD) Charge	83
Tax (TAX) Charge	84

**Primary Key Format:**

The Primary Key format for all Record Type ID values will be consistent across all records in the Data file and will have a fixed length. The layout is shown here.

<i>Field</i>	<i>Length</i>	<i>Comments</i>
Account Number	24	ACCTMSTR.ACCOUNT_NUMBER
Billing Date	10	format 'YYYY/MM/DD'
Invoice Number	12	format 'C00000000000'
Total Length	46	

### Secondary Key Format:

The Secondary Key format will vary slightly for the different Record Type Formats. The Account and Department Record Types will not require a Secondary Key value and as such, its individual field values will be represented as filler / spaces.

The Subscriber, MRC, OCC and LD Record Type Formats will utilize one or more of the fields within the Secondary Key value. Please refer to the individual Record Type descriptions to determine which fields are utilized. All Secondary Key formats will have a fixed length of 96 bytes.

The Secondary Key Format is shown below. Note that the fixed length of this record is consistent in all Record Formats contained in this document.

<i>Field</i>	<i>Length</i>	<i>Comments</i>
Department Number	24	DEPTMSTR.DEPARTMENT_NUMBER
Subscriber ID	7	SUBSCRIB.SUBSCRIBER_ID
Service Locator	1	See description below
Service Number	64	left justified, space (0x20) filled
Total Length	96	

The Service Locator value will have a unique value to distinguish the origin of the Subscriber / Service Number pair as a Subscriber can have OCC, MRC and various types of LD charges. Refer to the table below for the possible values of this field.

<i>Value</i>	<i>Comment</i>
'N'	denotes a Subscriber / Service Number from a Non-Recurring (OCC) charge detail.
'R'	denotes a Subscriber / Service Number from a Recurring (MRC) charge detail.
'P'	denotes a Subscriber / Service Number from an LD-Rated charge detail using PBN. The Service Number will represent the Subscriber ID value rather than the actual Subscriber's PBN value.
'F'	denotes a Subscriber / Service Number from an LD-Rated charge detail using From Number. The Service Number will represent the actual FROM NUMBER taken from the RATED call record.
'C'	denotes a Subscriber / Service Number from an LD-Rated charge detail using Calling Card. The Service Number field will represent the non-secure Calling Card ID value from the associated SUBCREDCARD record. If the SUBCREDCARD record cannot be located, the Service Number value will be populated using the FROM NUMBER within the RATED call record.
'X'	denotes a Subscriber from a Tax (TAX) charge detail.

**Record Format -- Account Record and Invoice Summary:**

The Account Record and Invoice Summary record will be used to describe the Account and its Contact information as well as the various charge category subtotals as represented on the Invoice Summary page of the SC Paper Invoice.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'71'
Record Data Length	3	3	'295'
Primary Key Value	6	46	
Secondary Key Value	52	96	None -- Filler (spaces, 0x20)
Account Number	148	24	ACCTMSTR.ACCOUNT_NUMBER
Account Name	172	50	ACCTMSTR.DESCRPTION
Contact Name	222	32	CONTACT.FNAME + LNAME
Contact Phone	254	12	format 'xxxxxxxxxxxx'
Contact Address 1	266	32	
Contact Address 2	298	32	
Contact Address 3	330	32	
Contact Address 4	362	32	format City, ST ZipCode – ZipCode Plus
Filler	394	1	space (0x20)
OCC Sub-Total	395	12	format 'S00000000.00'
MRC Sub-Total	407	12	format 'S00000000.00'
LD Sub-Total	419	12	format 'S00000000.00'
Grand Total	431	12	format 'S00000000.00'
<i>Total Length</i>		<i>442</i>	

**Record Format -- Department Record:**

The Department Record will be used to describe the Department and its Contact information.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'72'
Record Data Length	3	3	'246'
Primary Key Value	6	46	
Secondary Key Value	52	96	None -- Filler (spaces, 0x20)
Department Number	148	24	DEPTMSTR.DEPARTMENT_NUMBER
Department Name	172	50	DEPTMSTR.DEPARTMENT_NAME
Contact Name	222	32	CONTACT.FNAME + LNAME
Contact Phone	254	12	format 'xxxxxxxxxxx'
Contact Address 1	286	32	
Contact Address 2	318	32	
Contact Address 3	330	32	
Contact Address 4	362	32	format City, ST ZipCode – ZipCode Plus
<i>Total Length</i>		<i>393</i>	

**Record Format – Subscriber Record:**

The Subscriber Record will be used to describe the Subscriber and the Service Number associated with the subscriber. Since it is possible for a subscriber to have multiple Services with associated OCC, MRC and LD charges, there will likely be duplicate records within the file. The Secondary Key value of each record will utilize the Service Locator as an identifier to distinguish the various records. Each individual Subscriber Record will be followed by the applicable OCC, MRC, and LD Charge Detail records.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'73'
Record Data Length	3	3	'044'
Primary Key Value	6	46	
Secondary Key Value	52	--	Lengths are represented in the fields below
Department Number	52	24	Refer to Secondary Key Format discussion
Subscriber ID	76	7	
Service Locator	83	1	
Service Number	84	64	
Subscriber Name	148	32	format 'Last Name, First Name'
Subscriber Phone	180	12	format 'xxxxxxxxxxxx'
<i>Total Length</i>		<i>191</i>	



**Record Format – Non-Recurring Charge Detail (OCC):**

The Non-Recurring Charge Detail Records will be used to describe a subscriber's Non-Recurring (OCC) charges associated with a particular Work Order. The details of the Work Order and the charge are specified in the Record Data region.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'81'
Record Data Length	3	3	'103'
Primary Key Value	6	46	
Secondary Key Value	52	--	Lengths are represented in the fields below
Department Number	52	24	Refer to Secondary Key Format discussion
Subscriber ID	76	7	
Service Locator	83	1	
Service Number	84	64	
Pre-Order Number	148	10	format '0000000000'
Work Order Number	158	14	format 'PP-NNNNNNN-III'
Work Order Action	172	1	
Item Code	173	24	
Description	197	24	
Quantity	221	6	format '000000'
Unit Price	227	12	format 'S00000000.00'
Charge Amount	239	12	format 'S00000000.00'
<i>Total Length</i>		<i>250</i>	

**Record Format – Recurring Charge Detail (MRC):**

The Recurring Charge Detail Records will be used to describe a subscriber's Recurring (MRC) charges associated with a subscriber and service number combination. The charge details are specified in the Record Data region.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'82'
Record Data Length	3	3	'060'
Primary Key Value	6	46	
Secondary Key Value	52	--	Lengths are represented in the fields below
Department Number	52	24	Refer to Secondary Key Format discussion
Subscriber ID	76	7	
Service Locator	83	1	
Service Number	84	64	
Item Code	148	24	
Description	172	24	
Charge Amount	196	12	format 'S00000000.00'
<i>Total Length</i>		207	

**Record Format – Long Distance Charge Detail (LD):**

The Long Distance Charge Detail Records will be used to describe a subscriber's Long Distance and Calling Card (LD) charges associated with a particular subscriber and their PBN, From Number or Calling Card. The charge details are specified in the Record Data region.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'83'
Record Data Length	3	3	'127'
Primary Key Value	6	46	
Secondary Key Value	52	--	Lengths are represented in the fields below
Department Number	52	24	Refer to Secondary Key Format discussion
Subscriber ID	76	7	
Service Locator	83	1	
Service Number	84	64	
Connect Date	148	10	format 'YYYY/MM/DD'
Connect Time	158	5	format 'HH:MM' using a 24 hour clock
Duration	163	6	format 'MMM:SS'
Call Type	169	1	
Settlement Code	170	1	
Filler1	171	1	
From Number	172	12	format 'xxxxxxxxxxxx'
From Place	184	24	
From State	208	2	
Filler2	210	1	
To Number	211	12	format 'xxxxxxxxxxxx'
To Place	223	24	
To State	247	2	
Filler3	249	1	
Charge Amount	250	12	format 'S00000000.00'
Filler4	262	1	
Carrier	263	12	
<i>Total Length</i>		<i>274</i>	

**Record Format – Tax Charge Detail (TAX):**

The Tax Charge Detail Records will be used to describe a subscriber's Tax (TAX) charges. Since taxes are applied at the subscriber level, there is no Service associated with the line item. The charge details are specified in the Record Data region.

<i>Field</i>	<i>Position</i>	<i>Length</i>	<i>Comments</i>
Record Type ID	1	2	'84'
Record Data Length	3	3	'012'
Primary Key Value	6	46	
Secondary Key Value	52	--	Lengths are represented in the fields below
Department Number	52	24	Refer to Secondary Key Format discussion
Subscriber ID	76	7	
Service Locator	83	1	'X' Service Locator for Tax
Service Number	84	64	None -- Filler (spaces, 0x20)
Charge Amount	148	12	format 'S00000000.00'
<i>Total Length</i>		<i>159</i>	